

Amendments to the Claims:

Please substitute the following clean copy text for the pending claims of the same number.

Claims 1-30 and 51-76 (Previously Cancelled)

Claims 31-50 (Previously Withdrawn)

Please cancel claims 80 and 93-104 without prejudice, waiver, or disclaimer.

77. (Once Amended) A method of making a resistive heater having a controlled resistivity, having a substrate, a resistive heating layer, and a power source, comprising the steps of:

determining a desired resistivity of said resistive heater layer;

selecting a solid metallic component and at least one reactant gas;

selecting a proportion of said solid metallic component and said at least one reactant gas, so that when combined said desired resistivity of said resistive heater layer results;

promoting reaction of at least a portion of said solid metallic component and said reactant gas by melting said at least a portion of said solid metallic component resulting in a stream of molten droplets, and providing controlled introduction of said reactant gas to said molten droplets, thereby combining said ~~metallic component~~ molten droplets and said reactant gas, resulting in a free metal and reaction product;

depositing said combined free metal and reaction product on said substrate to form said resistive heater layer having said desired resistivity; and

providing power to said resistive heater layer.

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78. (Previously presented) The method of claim 77, wherein said reaction product is one or more oxide, nitride, carbide, and/or boride derivatives of said metallic component.

79. (Once Amended) The method of claim 77, wherein said reactant gas that is controlled in introduction to said molten droplets during said step of promoting reaction of at least a portion of said solid metallic component, comprises one or more of oxygen, nitrogen, carbon, and boron.

80. (Cancelled)

81. (Previously presented) The method of claim 77, further comprising the step of providing an electrically insulating layer between said substrate and said resistive layer.

82. (Previously presented) The method of claim 81, further comprising the step of providing an adhesion layer between said insulating layer and said substrate.

83. (Previously presented) The method of claim 82, wherein said adhesion layer comprises nickel-chrome alloy or nickel-chrome-aluminum-yttrium alloy.

84. (Previously presented) The method of claim 77, further comprising the step of providing a heat reflective layer between said resistive heater layer and said substrate.

85. (Previously presented) The method of claim 84, wherein said heat reflective layer comprises zirconium oxide.

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86. (Previously presented) The method of claim 77, further comprising the step of providing a ceramic layer superficial to said resistive heater layer.

87. (Previously presented) The method of claim 86, wherein said ceramic layer comprises aluminum oxide.

88. (Previously presented) The method of claim 77, further comprising the step of providing a metallic layer superficial to said resistive heating layer.

89. (Previously presented) The method of claim 88, wherein said metallic layer comprises molybdenum or tungsten.

90. (Previously presented) The method of claim 77, wherein said metallic component is titanium (Ti), silicon (Si), aluminum (Al), zirconium (Zr), cobalt (Co), nickel (Ni), iron (Fe), or alloys thereof.

91. (Previously presented) The method of claim 77, wherein said reaction product is one or more nitride, carbide, and/or boride derivatives of said metallic component.

92. (Previously presented) The method of claim 77, wherein said reaction product is two or more oxide, nitride, carbide, and/or boride derivatives of said metallic component.

93. (Cancelled)

94. (Cancelled)

95. (Cancelled)

96. (Cancelled)

97. (Cancelled)

98. (Cancelled)

99. (Cancelled)

100. (Cancelled)

101. (Cancelled)

102. (Cancelled)

103. (Cancelled)

104. (Cancelled)

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105. (Newly Added) The method of claim 77, wherein said solid metallic component is not oxidized prior to said step of promoting reaction.

106. (Newly Added) The method of claim 77, wherein said solid metallic component is a solid metallic wire.

107. (Newly Added) The method of claim 77, wherein there is no reaction of said solid metallic component with said reactant gas prior to said step of promoting reaction.

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